

STATUS OF THE CLAIMS

1. (original) An antibody or antigen-binding fragment thereof that binds to an extracellular localized epitope of Hsp70 on tumor cells.
2. (original) The antibody of claim 1, wherein said tumor is a human tumor selected from the group consisting of colon, lung, stomach, pancreas, head and neck, ovary, and/or breast cancer, melanoma, glioblastoma, sarcoma and or leukemia such as AML, ALL, MDS or blastocytoma.
3. (currently amended) The antibody of claim 1 ~~or 2~~, wherein said epitope comprises or consist of the amino acid sequence NLLGRFEL (SEQ ID NO: 1) or TKDNNLLGREFLSG (SEQ ID NO: 2).
4. (currently amended) The antibody of ~~any one of claims claim 1 to 3~~, which is a monoclonal antibody.
5. (original) The antibody of claim 4, which is monoclonal antibody cmHsp70.1 as produced by hybridoma cmHsp70.1, deposited with the DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Mascheroder Weg 1b, D-38124 Braunschweig, Germany on November 14, 2003, and assigned Accession Number DSM ACC2629, or cmHsp70.2 as produced by hybridoma cmHsp70.2, deposited with the DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH on November 14, 2003, and assigned Accession Number DSM ACC2630.

6. (original) An antibody or antigen-binding fragment thereof that competes with an antibody of claim 5 for binding to an extracellular localized epitope of Hsp70 on human tumor cells.
7. (currently amended) The antibody or antigen-binding fragment of ~~any one of claims claim 1 to 6~~, which is capable of exhibiting an inhibitory effect on the cytolytic activity of NK cells against Hsp70 expressing tumor cells.
8. (currently amended) The antibody of ~~any one of claims claim 1 to 7~~, which is a human, humanized, xenogeneic, or a chimeric human-murine antibody.
9. (currently amended) The antigen-binding fragment of ~~any one of claims claim 1 to 8~~, which is selected from the group consisting of a single chain Fv fragment, an F(ab') fragment, an F(ab) fragment, and an F(ab')₂ fragment.
10. (currently amended) A hybridoma that produces a monoclonal antibody of ~~any one of claims claim 1 to 9~~.
11. (original) The hybridoma of claim 10, selected from the group consisting of hybridoma cmHsp70.1, deposited with the DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Mascheroder Weg 1b, D-38124 Braunschweig, Germany on November 13, 2003, and assigned Accession Number DSM ACC2629, and cmHsp70.2, deposited with the DSMZ-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH on November 14, 2003, and assigned Accession Number DSM ACC2670.
12. (currently amended) A polynucleotide encoding at least a variable region of an immunoglobulin chain of the antibody of ~~any one of claims claim 1 to 9~~.

13. (original) The polynucleotide of claim 12, wherein said variable region comprises at least one complementarity determining region (CDR) of the V_H and/or V_L of the variable region of the antibody of claim 6.
14. (currently amended) A vector comprising the polynucleotide of claim 12 ~~or 13~~, optionally in combination with a polynucleotide of claim 12 ~~or 13~~ that encodes the variable region of the other immunoglobulin chain of said antibody.
15. (currently amended) A host cell comprising a polynucleotide of claim 12 ~~or 13~~ or a vector of claim 14.
16. (original) A method for preparing an antibody that binds to an extracellular localized epitope of Hsp70 on tumor cells, or a functional fragment or immunoglobulin chain(s) thereof, said method comprising
- (a) culturing the cell of claim 15; and
 - (b) isolating said antibody or functional fragment or immunoglobulin chain(s) thereof from the culture.
17. (currently amended) An antibody, an immunoglobulin chain thereof or a binding fragment thereof encoded by a polynucleotide of claim 12 ~~or 13~~ or obtainable by the method of claim 16.
18. (currently amended) A bi- or multifunctional molecule that comprises the binding domain of an antibody of ~~any one of claims~~ claim 1 ~~to 9~~, an immunoglobulin chain thereof or a binding fragment thereof which binds cell surface membrane-bound heat shock protein (HSP), and at least one further functional domain.

19. (original) The bi- or multifunctional molecule of claim 18, which is bispecific molecule.
20. (original) The bispecific molecule of claim 19, which is a bispecific antibody.
21. (currently amended) The bi- or multifunctional molecule of ~~any one of claims claim 18 to 20~~, wherein said further functional domain is a cytotoxic agent or a label.
22. (currently amended) A composition comprising the an element selected from the group consisting of the antibody of ~~any one of claims claim 1 to 9~~ or 17, the bi- or multifunctional molecule of ~~any one of claims claim 18 to 21~~, the polynucleotide of claim 12 ~~or 13~~, the vector of claim 14 or the cell of claim 15.
23. (original) The composition of claim 22 which is a pharmaceutical composition and further comprises a pharmaceutically acceptable carrier.
24. (original) The pharmaceutical composition of claim 23 further comprising an immune stimulatory agent.
25. (currently amended) A diagnostic composition comprising an element selected from the group consisting of the antibody of ~~any one of claims claim 1 to 9~~ or 17, the bi- or multifunctional molecule of ~~any one of claims claim 18 to 21~~, the polynucleotide of claim 12 ~~or 13~~, the vector of claim 14 or the cell of claim 15; and optionally reagents conventionally used in immuno or nucleic acid based diagnostic methods.

26. (canceled)

27. (canceled)

28. (canceled)

29. (currently amended) A method of treating a tumor or modulating the immune response in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the antibody of ~~any one of claims claim 1 to 9~~ or 17 or the bi- or multifunctional molecule of ~~any one of claims claim 18 to 21~~.

30. (currently amended) ~~The use of claim 28 or the~~ method of claim 29, wherein said pharmaceutical composition is designed to be administered intravenously, intramuscularly, subcutaneously, intraperitoneally, or as an aerosol.

31. (canceled)

32. (currently amended) ~~The use of claim 28 or 30 or the~~ method of claim 29 ~~or 31~~, wherein said disorder related to an immune response relates to a viral infection, bacterial infection, rheumatoid arthritis, lupus erythematoses, asthma bronchiale.

33. (canceled)

34. (canceled)

35. (canceled)

36. (original) A method for obtaining monoclonal antibodies or binding fragments thereof comprising subjecting a sample comprising an immunoglobulin of interest to the purification protocol as described in example 2.
37. (original) The method of claim 36, wherein said sample comprises or is derived from a supernatant obtained from hybridomas.
38. (original) The method of claim 37, wherein said hybridoma is a hybridoma as defined in claim 10 or 11.
39. (currently amended) An antibody or binding fragment thereof obtainable by the method of ~~any one of claims~~ claim 36 to 38.